

11/02/00
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A
PATENT APPLICATION

Case Docket No. 200-0592

Date:

Sir:

Transmitted herewith for filing is the patent application of Inventor(s):

Victor Kudyba
Brendan Solan

For: METHOD FOR RECEIVING AND SHIPPING ITEMS

Enclosed are:

- 1 sheet(s) of drawings
 Assignment and Cover Sheet
 Information Disclosure Statement, PTO Form 1449, and Copies of Citations
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METHOD FOR RECEIVING AND SHIPPING ITEMS

(1) FIELD OF THE INVENTION

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The present invention generally relates to a method for receiving and shipping items and more particularly to a method for receiving manufactured items, such as vehicles which are to be transported to a variety of 10 desired destinations, for efficiently sorting these received items in a manner which substantially increases the likelihood that these items will be respectively transported to these certain desired destinations, and for efficiently shipping these sorted items to these 15 desired destinations.

(2) BACKGROUND OF THE INVENTION

Items, such as vehicles, are usually transported to and temporarily stored within a relatively large yard or 20 "staging area" which is relatively close to the manufacturing plant at which the vehicles were created. These vehicles or other items are respectively required to be shipped to a wide variety of locations or 25 destinations and typically remain in the yard until placed upon a truck, railcar, or other vehicle or conveyance for transport to their respective destination.

Typically, vehicles are driven into the yard as they are created by the manufacturing plant. The respective

destination of each of these vehicles is usually coded and contained within or placed upon a route code label which is selectively attached to the "passenger side window" of each of the respective vehicles. Oftentimes, 5 these vehicles are placed at any convenient location within the yard and substantially no record is maintained of the current location of each of the vehicles within the yard.

Hence, one or more individuals are typically 10 required to frequently "search the yard" in order to identify groups of vehicles which are "bound for" or which are to be transported to the same destination. Such "manual identification" or manual sorting not only undesirably increases the amount of time required to ship 15 these vehicles but further increases the likelihood of error, thereby causing some of the vehicles to be transported to an incorrect destination. Further, this arrangement does not allow a certain vehicle to be quickly and easily identified within the yard in order to 20 allow the vehicle to be serviced before shipment. For example and without limitation, certain quality concerns may arise relative to certain components contained within a manufactured vehicle after it has been placed into the yard but before it has been shipped, thereby necessitating a repair or modification of the temporarily 25 stored vehicle. Hence, it is highly desirable to allow a

vehicle to be quickly identified in order to allow the vehicle to be serviced and/or modified before it is shipped.

A number of transport conveyances or railcars are 5 also typically present in close proximity to the yard and are selectively and cooperatively used to transport these vehicles to the respectively required and desired destinations. Each of these conveyances and/or railcars must typically be manually identified by these 10 individuals and correctly associated with a certain destination (i.e. each conveyance or railcar is to travel to a certain destination from the yard and each of these respective destinations must be manually and correctly identified and used with the vehicle destination 15 information to determine the identity of those vehicles which are respectively "loaded onto" each of the conveyances or railcars). Such manual identification not only undesirably increases the overall time and the cost of shipping such vehicles, but also undesirably increases 20 the likelihood of shipment error.

There is therefore a need for a new and improved method for receiving and shipping items which overcomes at least some of the previously delineated drawbacks of prior methods.

SUMMARY OF THE INVENTION

It is a first object of the present invention to provide a method for receiving and shipping items which overcomes at least some of the previously delineated drawbacks of prior methods.

5 It is a second object of the present invention to provide a method for receiving and shipping items which overcomes at least some of the previously delineated drawbacks of prior methods and which provides a substantially accurate indication of the location of each
10 received item within a storage yard.

It is a third object of the present invention to provide a method for receiving and shipping items which overcomes at least some of the previously delineated drawbacks of prior methods and which automatically
15 identifies each of the vehicles, conveyances, and/or railcars which are to transport these items and their respective final destinations.

It is a fourth object of the present invention to provide a method for receiving and shipping items which overcomes at least some of the previously delineated drawbacks of prior methods and which automatically
20 identifies a desired destination for each of the items and which further automatically and/or electronically stores the location of each of the items within a storage
25 yard or facility.

According to a first aspect of the present invention, a method for receiving goods is provided. The method comprises the steps of providing a yard; receiving an item; placing the item at a certain location within 5 the yard; and storing the certain location, effective to allow the item to be quickly located.

According to a second aspect of the present invention a method for shipping an item to a certain destination is provided. The method comprises the steps 10 of providing a unique identification code for the item; providing a second unique identification code for the destination; providing a device; communicating the first and second unique identification codes to the device, thereby allowing the item to be shipped to the certain 15 destination.

These and other aspects, features, and advantages of the present invention will become apparent from a reading of the following detailed description of the preferred embodiment of the invention and by reference to the 20 following drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a flowchart illustrating the sequence of steps included within and/or comprising the methodology 25 of the preferred embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT OF THE
INVENTION

Referring now to Figure 1, there is shown a flowchart 10 which illustrates the sequence of 5 operational steps which are included within and/or which cooperatively comprise the methodology of the preferred embodiment of the invention.

Particularly, flowchart and/or methodology 10 begins with an initial step 12 in which a unique identification 10 number is assigned to each manufactured or created item, such as a vehicle. It should be appreciated that while the following discussion describes the use of methodology 10 with manufactured vehicles, the methodology 10 may similarly be used with a variety of other manufactured 15 and/or created items and that nothing in this application should limit the applicability of the methodology 10 to only use with vehicles. Step 14 follows step 12 and, in this step, each unique vehicle identification code is stored within a computerized or electronic database.

Step 16 follows step 14 and, in this step, a second unique identification number is assigned to each manufactured vehicle and each manufactured vehicle receives a selectively readable device or "tag" assembly which is disposed upon or coupled to the vehicle. In one 25 embodiment, this tag comprises a location determination device (e.g., a transceiver or transponder) which may

selectively transmit geographic coordinates corresponding to the present location of the vehicle or which may be used within a system which selectively interrogates the tag effective to allow the vehicle locations to be
5 identified. One example of such a "tag" or location system is described within United States Patent Number 5,920,287 (the '287 patent) which is fully and completely incorporated herein by reference. Each such tag may also include a "bar code" type storage device which may
10 selectively receive and store desired information and which may be selectively read by a "bar code" type or optical scanner.

Particularly, each such tag assembly or device stores the second unique identification code associated
15 with and/or uniquely identifying the vehicle upon which the tag is contained or disposed. Moreover, in this step, each first unique vehicle identification code is associated with or "cross referenced to" one of the second unique identification codes within the stored
20 database. In the preferred embodiment of the invention, the device may be "read" or automatically scanned as the vehicle enters a storage yard or reception area. In this manner, each vehicle has a first and a second unique and selectively readable identification code.

25 Step 18 follows step 16 and, in this step, a third identification code is assigned to each of the

manufactured vehicles or received items and is respectively indicative of the destination of each such vehicle. The third identification code is stored within the database and may also be stored within the location 5 determination device or tag assembly. Hence, at the conclusion of step 18, each manufactured vehicle may be selectively referenced within a relational or computer database by use of a stored first, second, and third identification code.

10 Step 20 follows step 18 and, in this step, each of the manufactured vehicles is associated with and/or "cross referenced" to a fourth identification code which indicates the status of the vehicle.

15 For example, it may be desirable to allow the manufacturing plant to remove a vehicle from the yard within a certain amount of time after the vehicle has been delivered in order to allow the plant personnel to service or repair on the vehicle. Moreover, it may also be desirable to allow plant personnel or other 20 individuals or entities to place a "hold" condition on the vehicle in order to prevent the vehicle from being shipped due to some identified and potential malfunction. In the preferred embodiment of the invention, only manufactured vehicles having a certain status may be 25 shipped and the respective status may be selectively

placed within each of the respective tags (i.e., stored as the fourth identification code).

Step 22 follows step 20 and, in this step, each vehicle is assigned a fifth identification code which is 5 respectively indicative of the vehicle's location within the yard. This location code is altered or modified as the vehicle is moved within the yard. Alternatively, as previously delineated, each tag is adapted to selectively provide this information upon receipt of a request or 10 query type command from a device or a system such as that described within the '287 patent, which allows this "location information" to be selectively obtained. Any of the identification codes assigned to the vehicles may be changed or altered automatically and electronically to 15 reflect a change in status, destination or location within the yard. Step 24 follows step 22 and, in this step, each of the various transport carriers and/or conveyances are identified.

Step 26 follows step 24 and, in this step, each 20 vehicle is assigned to one of previously identified transport conveyances or railcars by a computer or by a dispatcher by use of one or more of the previously delineated identification numbers. That is, each "shippable vehicle" (i.e. each vehicle having a certain 25 "shippable" status) is assigned to one of the transport conveyances or railcars such that a vehicle is placed

upon a railcar or transport conveyances having a respective destination which is substantially similar to the destination of that vehicle. In one embodiment of the invention, a list may be automatically and selectively generated in order to substantially ensure that the vehicles are correctly "matched" to the railcars and transport conveyances (i.e., a list of all vehicles required to be transported to each respective destination is created). Further, in another non-limiting embodiment, a sixth identification number is assigned to each vehicle and this number, having a selected one of several values, indicates whether a vehicle has been transported or shipped from the yard, thereby allowing a record to be created of the transportation status of each vehicle. Moreover, each readable device or "tag" is removed from each vehicle before the vehicle is shipped and may be used with newly received vehicles in the previously delineated manner.

It should be realized that the invention is not limited to the exact construction which has been described above, but that various changes may be made without departing from the spirit and the scope of the invention as is more fully delineated within the following claims.

WHAT IS CLAIMED IS:

(1) A method comprising the steps of:

providing a reception area;

receiving an item;

5 placing said item at a certain location within said reception area;

providing a status indicator having one of a plurality of values;

10 placing a location determination device upon said item, effective to allow the item to be quickly located within said reception area; and

shipping said item only if said status indicator has a certain value.

(2) The method of claim 1 wherein said item comprises a vehicle.

(3) The method of claim 2 wherein said item is to be shipped to a certain destination and wherein said method further comprises the step of storing said certain destination.

20 (4) The method of claim 3 wherein said item is to be shipped by a transport carrier to said certain destination, said method further comprising the steps of:

assigning said item to a transport carrier based upon said stored certain destination.

25 (5) The method of claim 4 further comprising the step of generating a report including the location of said item.

(6) The method of claim 5 wherein said transport carrier comprises a railcar.

(7) A method for shipping an item to a certain destination comprising the steps of:

5 providing a first identification code for said item;

providing a second identification code for said certain destination;

providing a device;

placing said device onto said item; and

10 communicating said first and second identification codes to said device; and

using said device to locate said item and to assign said item to a conveyance, effective to ship said item to said certain destination.

15 (8) The method of claim 7 wherein said item comprises a vehicle.

(9) The method of claim 7 further comprising the steps of:

20 providing a third identification code representing a status of said vehicle; and

communicating said third identification code to said device, thereby allowing said status of said vehicle to be selectively ascertained.

(10) The method of claim 9 wherein said first, second and
25 third identification codes are selectively stored within a database.

(11) The method of claim 10 further comprising the steps of:

providing a fourth identification code representing a location of said vehicle within a yard; and

5 communicating said fourth identification code to said device, thereby allowing said location of said vehicle within said yard to be selectively ascertained.

(12) The method of claim 11 further comprising the step of altering said fourth identification code in response 10 to said vehicle being moved within said yard.

(13) A method for shipping a vehicle comprising the steps of:

providing a first code representing an identification number of said vehicle;

15 providing a location determination device;

placing said location determination device upon said vehicle;

receiving and storing said vehicle;

storing said first code and said second code within 20 a database;

cross-referencing said first code to said second code;

providing a third code which represents a destination of said vehicle;

25 storing said third code within said database and within said location determination device;

providing a fourth code which represents a status of said vehicle;

storing said fourth code within said database; and utilizing said database and said location determination device to selectively locate and ship said vehicle.

(14) The method of claim 13 wherein said location determination device comprises a transceiver.

(15) The method of claim 13 wherein said fourth code may 10 be selectively altered effective to selectively prevent said shipment of said vehicle.

(16) The method of claim 15 wherein said vehicle is held within a yard and further comprising the steps of:

15 providing a fifth code representing a location of said vehicle within said yard; and

selectively storing said fifth code within said location determination device effective to allow said vehicle to be located within said yard.

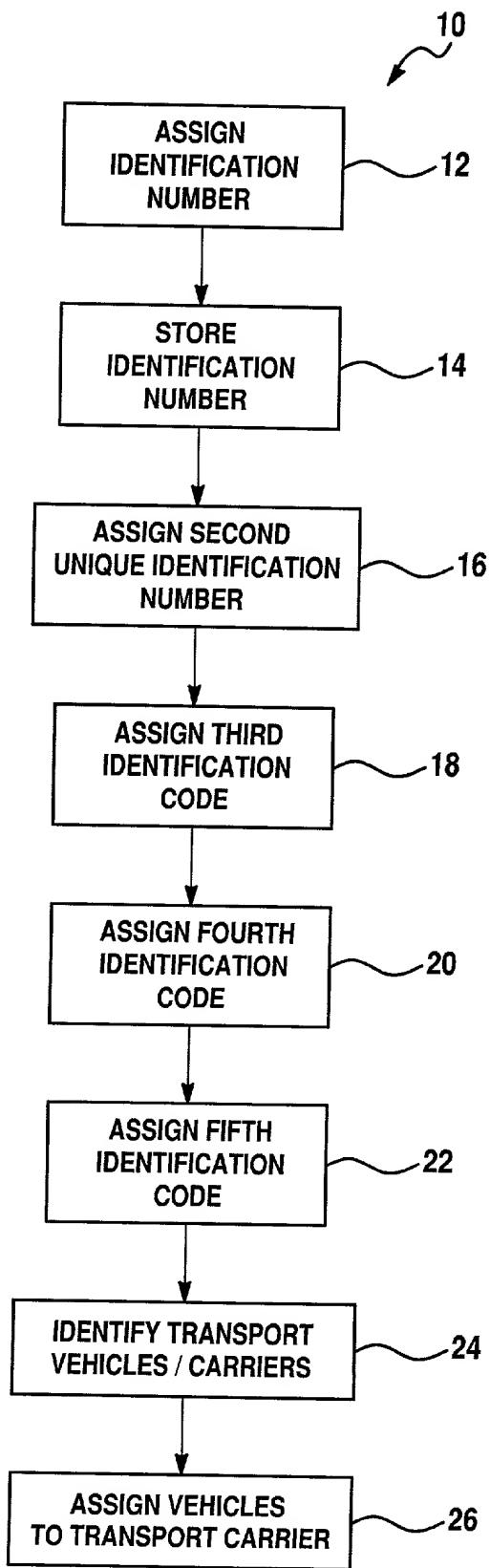
(17) The method of claim 16 wherein said fifth code may 20 be selectively altered, effective to represent a movement of said vehicle within said yard.

(18) The method of claim 13 further comprising the step of creating a sixth identification code having a certain value which indicates said shipment of said vehicle.

ABSTRACT OF THE DISCLOSURE

A method 10 for receiving and shipping vehicles or other manufactured items in which the items are assigned 5 several identification numbers and in which the transport conveyances and/or railcars are similarly and respectively assigned several identification numbers. These identification numbers cooperatively allow the vehicles to be quickly located within a storage yard or 10 facility and to be efficiently and accurately assigned to a transport vehicle or railcar, effective to allow the vehicles to be transported to a desired destination.

Figure 1



DECLARATION AND POWER OF ATTORNEY - ORIGINAL APPLICATION**Attorney's Docket No.
200-0592**

As a below named inventor, I hereby declare:

My residence, post office address and citizenship are as stated below next to my name;

I verily believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled

METHOD FOR RECEIVING AND SHIPPING ITEMS

the specification of which is attached hereto.

I have reviewed and understand the contents of the specification identified above, including the claims.

I acknowledge my duty to disclose information of which I am aware that is material to the examination of this application in accordance with Section 1.56(a), Title 37 of the Code of Federal Regulations; and

as to application for patents or inventor's certificate on the invention filed in any country foreign to the United States of America, prior to this application by me or my legal representatives or assigns,

- no such applications have been filed, or
 such applications have been filed as follows

COUNTRY	APPLICATION NO.	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application Number) _____ (Filing Date) _____ (Status - patented, pending, abandoned)

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POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith and to act on my behalf before the competent International Authorities in connection with any and all international applications filed by me.
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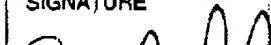
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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